MINUTES OF THE
2011 ANNUAL BASIN-WIDE PLAN MEETING
FOR JOINT INTEGRATED WATER RESOURCES MANAGEMENT
OF OVERAPPROPRIATED PORTIONS OF THE PLATTE RIVER BASIN
July 21, 2011
Central Platte Natural Resources District Office, Grand Island, Nebraska

Attendance

Jim Schneider	DNR	Tina Kurtz	NPNRD
Brandi Flyr	DNR	Rod Horn	SPNRD
Pat Goltl	DNR	Kyle Liebig	SPNRD
Doug Hallum	DNR	John Thorburn	TBNRD
Laura Paeglis	DNR	Kent Miller	TPNRD
Jennifer Schellpeper	DNR	Bill Halligan	SPNRD Board
Ron Bishop	CPNRD	Don Kraus	CNPPID
Matt Bohnenkamp	CPNRD	Dan Crouchley	MUD
Dan Clement	CPNRD	Frank Albrecht	NGPC
Mark Czaplewski	CPNRD	Brian Barels	NPPD
Jesse Mintken	CPNRD	Jeff Shafer	NPPD
Duane Woodward	CPNRD	Jerry Kenny	PRRIP
Ron Cacek	NPNRD	Roric Paulman	WCWC
Greg Jackson	NPNRD		

1. Introductions

Ron Bishop, Manager of the Central Platte Natural Resources District (CPNRD), began the meeting with introductions throughout the room.

2. Review Agenda

Mr. Bishop then asked Jennifer Schellpeper to review the agenda. Ms. Schellpeper asked for any revisions to the agenda and none were suggested

3. Discuss Procedures for the Basin-Wide Plan Annual Meeting

Ms. Schellpeper discussed the general order of the meeting as noted in the agenda. First will be reports from NDNR and the NRDs. She noted that several presentations on new data, information, and studies will take place later. Section 5 of the agenda is the proposed revisions to the basin-wide plan, to any individual IMPs, or any disputes. One public letter was received from the West Central Water Coalition in advance of the meeting and will be discussed in Section 5. Finally, there will be an open public comment period.

4. Monitoring & Management Actions

DNR Report

Ms. Schellpeper presented the annual report for the DNR. Data and information from the reports is used for the Annual Evaluation looking at depletions and accretions through the

year 2048 and the Robust Review that occurs every five years which includes groundwater modeling. Both are called for in the Basin-Wide Plan and individual integrated management plans. The DNR report is presented for the 2010 calendar year activities. To summarize, there were no new surface water permits issued, one dam safety permit, and two groundwater permits issued. The report and appendices are available on the DNR website. For these types of permits, there are no immediate offset requirements under the IMPs. Permits issued for livestock, municipal and industrial will be handled by individual NRDs for any offsets required. Twelve surface water permits were cancelled that overlap with retirements and surface water purchases through PBHEP by the NRDs.

Every five years the DNR reports National Agricultural Statistics Service livestock data (number of cattle), U.S. Census Bureau population data, and the inventory of sandpits and reservoirs under fifteen acre-feet. The cattle population between 2005 and 2010 decreased, reducing consumptive use of water by approximately eleven acre-feet. The census data is still being processed. The sandpit and reservoir data is also being processed. This work is about 75% complete and should be completed in the next few months. It is a time consuming process as it requires that staff manually digitize the water bodies. DNR plans to automate parts of the process in the future to shorten the time to completion.

Additional items in the report discuss new data, information, and studies that Jim Schneider will discuss in his presentation.

Through various programs, the DNR has retired a number of acres in the Platte Basin: over 10,000 acres in CREP, 2,500 acres in EQIP, and 300 acres in AWEP.

A number of studies are going on and have been finished, including the excess flow analysis with new scoping going on now, and a conjunctive management conceptual design project with the TPNRD (the conceptual design has been completed). COHYST and the Western Water Use Project continue to develop surface and groundwater models to manage the system more conjunctively in the future. A study is in progress with SPNRD on Lodgepole Creek, and DNR is working on methods to calculate depletions and accretions (which Doug Hallum will talk more about) and identifying the difference between over- and fully appropriated levels of development (which Jim Schneider will talk about later).

CPNRD Report

Matt Bohnenkamp reported a total of 1,016,589 certified acres through 2010. The number of acre transfers approved was 108 for the year and affected 2367 acres. Well permits were issued for 125 irrigation wells. For the municipal and industrial, accounting baselines have been established from the 2010 U.S. Census data. Surface water and groundwater rights were acquired in the overappropriated basin for a total of 829 acre-feet. CPNRD also had two purchases in the fully appropriated zone.

The report details how the geospatial database works with irrigation groundwater and surface water transfers. The transfers are summarized by acres within the PBHEP priority zones to show percentages and the details are found in the report appendix.

Groundwater levels did not need to be tracked or reported for the IMP. Additionally, other streamflow accretion activities are under way but the analyses are not yet completed.

NPNRD Report

Ron Cacek reported 2010 well certifications include six irrigation wells and two industrial certifications. These had been in process for a long time and were only finalized in 2010. The NPNRD had one transfer of both certified acres and the point of withdrawal in the fully appropriated area. Four replacement well irrigation permits were issued. One industrial well permit was issued, which was offset by the decommissioning of a well. One public water supply replacement well was permitted. Municipal accounting information was collected for municipalities and public water supply wells, and both baseline and annual report details are available in the report. Industrial accounting is not complete and is waiting for a resolution of discussions between NPPD and the NRDs. Flow meter data for the overappropriated area of the NRD and the Pumpkin Creek area are available. Water pumped was 113,154 acre-feet on 179,957 acres that received irrigation water from groundwater. This amounted to approximately 7 ½ acre-inches per acre. Under AWEP, 1,253.8 certified irrigated acres were temporarily retired.

SPNRD Report

Kyle Liebig reported that certified acres increased by 4.5 acres due to an approved variance to a total of 133,095 certified acres. Nine transfers were approved in 2010; six for pivot modifications with no change in consumptive use, two for industrial out-of-state transfers, and one for industrial in-district transfer. There were three replacement well permits. Ten variances were granted: the 4.5 certified acre variance previously mentioned, one for pooling across subarea lines, one transfer of certified irrigated acres from one landowner to another in the same section, and seven industrial variances concerning baselines.

Industrial accounting has been completed with several variances pending the final baseline. Municipal accounting will be complete by October with both municipalities, and the SPNRD Board approving baselines. Industrial accounting is included in the report.

According to flow meter data, almost 99,000 acre-feet were pumped last year, averaging about 9 ½ inches per acre. Forty percent of the certified irrigated acres were in corn last year with twenty percent in wheat. 2010 was the fourth year of allocation for the Lodgepole Creek area and the second year for the Tablelands and South Platte Valley areas. SPNRD retired approximately 150 acres last year through PBHEP resulting in about 80 acre-feet added. To date there is over 1,200 acres decertified, estimated to be 500 acre-feet of accretion.

Other activities include developing the Western Water Use Model in cooperation with the NPNRD, the Lodgepole Creek Flow Evaluation Study in cooperation with DNR, and development of a water accounting GIS system.

TBNRD Report

John Thorburn reported 297,635.7 certified irrigated acres in TBNRD through December 31, 2010. This is a slight increase over the previous year because of the conditional certification of 144.7 irrigated acres in Kearney County in the overappropriated area of the district that had been irrigated in the 1970s – 1980s, but had been in CRP. During 2010, 75.72 certified irrigated acres were transferred. One new well permit, a variance associated with a certified acre transfer, was granted. Nineteen replacement well permits were issued, and three conditional replacement well permits (one supplemental to surface water and two supplemental to groundwater). Flow meters are required on all new wells drilled after 2004 and on any wells that receive cost/share for irrigation improvements. Over 34,000 irrigated acres are reporting water use data through flow meters.

A streamflow augmentation project was completed in 2010 along North Dry Creek in Kearney County. There is one 1250 gpm well in place and it has the capability to operate 240 days per year pumping up to 1325 acre-feet of water. This is a controllable offset project and can be used when streamflows are below Fish & Wildlife surface target flows. It is a scalable offset project and TBNRD has two other phases of that project planned for the future.

The district requires, as part of our Groundwater Quality Management Area, that landowners submit crop reports with tillage practices. There are 58,920 certified acres reporting use of conservation tillage practices in the area of the TBNRD groundwater quality management area that overlaps with the Platte Basin. Extrapolating that number, we estimate that in the Platte Basin that there are over 120,000 irrigated acres utilizing no till or other minimum till practices. Recent research indicates that such practices can reduce evapotranspiration by 3 inches per acre per year, so this is considered a significant reduction in irrigation water use.

TBNRD has a pending contract with CNPPID to lease irrigation water, and after permitting by DNR, 1633 acre-feet of creditable water will be returned to the Platte to offset depletions for post-1997 uses.

There are 91 irrigation wells and 107 dedicated groundwater observation wells used to gather groundwater level data, and groundwater level data is exchanged with CNPPID on their 160 wells. The trend is considerably up in the Platte basin this year. All that information along with details on the other portions of this report are found in Appendices to the report delivered to DNR.

TPNRD Report

Kent Miller clarified that the copies of the TPNRD report available at the meeting are the final version even though they are stamped as "draft." TPNRD has 317,483 certified

irrigated acres. That includes an increase of 122.96 acres mostly due to acres coming out of CRP. TPNRD had a few acres that were originally not certified but should have been or that were incorrectly noted previously, so that's the reason for change of 123 certified irrigated acres from 2009.

TPNRD had a total of 28 transfers. Transfers are allowed only if there are no new depletions to the river. Some of the limiting factors in the district for transfers include not allowing transfers from one basin to another (in other words, one cannot transfer from the South Platte Basin to the North Platte) and not allowing transfers across flow lines to surface diversions unless moving downstream because this reduces the impact on timing back to the river. No transfers are allowed outside the one-mile limit outside the zoning area of villages and the two-mile limit outside the zoning area of cities. If transfers go from a higher to a lower stream depletion factor (sdf), the ratio is one-to-one; acres are not increased. If transferring from a lower to a higher sdf, acres are reduced. Thus, if moving away from the river, acres do not increase; if moving closer to the river, acres are reduced.

For well construction permits/replacements: TPNRD had 25 replacement wells approved, two temporary de-watering wells, and 8 new well permits. The new well permits were only allowed to better serve certified irrigated acres. Municipal accounting worked with villages and cities to get their pumping and discharge records from 1997-2010; all communities reported and baselines were developed using population from the census.

Industrial accounting: at this time TPNRD does not have industrial accounting in place or industrial figures. TPNRD is still working with the Platte Basin NRDs, DNR and MPPD to develop an accounting system which accurately portrays the industrial water uses. The District plans to have this system in place with figures to report next year. Discussions were put on hold with the technical committee until after this meeting.

New Data and Information/Studies

Jim Schneider stated that a major purpose of these public meetings is for information exchange. He presented a slide presentation on the proactive areas that the DNR is working on particularly on new studies and data collection taking place in the basin. He began with a general overview of the educational process that NRDs and DNR are trying to implement and talked about the integrated management planning process. He also spoke about the specifics of data collection and the studies now going on in the basin to build information needed to go forward. Examples in the presentation are from the Twin Platte NRD's IMP for illustration purposes.

Mr. Schneider showed the section on "Information and Education Programs" as examples of the possible topics and methods to use in programs to educate and inform the stakeholders and the general public. He posed the question "what's the best way to get information out?" and that public meetings are one way that have been used and continue to be used. Other methods include information on paper material and on websites, stating

that we don't always know how people get the information or even if they know there's information that they can get.

Mr. Schneider clarified what integrated management is in Nebraska, what it's not, and how it's being used. He showed a slide illustrating the general description of integrated management as bringing together groundwater and surface water management in a joint process between the NRDs and DNR. The integrated water management process is a proactive process. A big part of that is the annual evaluation that DNR does every year to look at long-term availability and try to prevent conflicts between users across the state, and it's important in terms of the overappropriated basin because that is an important benchmark for long-term goals. He defined "overappropriated" as an insufficient supply at some time and/or at some place within a basin and that can cause conflict. That's what is being addressed in a fully appropriated or overappropriated basin in an IMP and the key goal is to balance supply and use, and that starts the adaptive management process of putting programs into place and evaluating success, learning from that, and making adjustments.

Mr. Schneider clarified that integrated management planning is definitely an adaptive management process. Through the process one does not wait until all variables are known before making adjustments. He continued that integrated management planning is not static; we can't just stop when we meet some goals and say that we've achieved everything we need to achieve and we're done. It can't be that because we have a variable water supply that changes over time, and needs for water change over time. It also is not mandatory restrictions on new development. In an overappropriated basin that gets to be more complicated, but that still doesn't necessarily apply, especially for municipal and industrial uses. Mr. Schneider then expanded on the steps involved in adaptive water management: assessing supply and demand, designing tools, setting goals (implementation), management actions (monitoring), evaluating the projects ability to meet goals, and finally, adjusting basin goals, as needed.

The Basin-Wide Plan's Goal 3, Objective 1.B includes reporting on new data and information as related to the basin. Mr. Schneider noted that language in IMPs related to programs include transferring surface water appropriations to instream flow appropriations, transferring surface water appropriations or applying for new appropriations for intentional recharge, developing new infrastructure for recharge projects, developing groundwater projects to provide net accretions, and facilitating contractual agreements between water users. There are a number of incentives and other programs related to the areas previously mentioned. These include the Platte Basin Habitat Enhancement Program (PBHEP), federal programs (AWEP, CREP, EQIP), groundwater recharge pilot projects, the Western Canal Reuse Pit Recharge Project, and the North Dry Creek Augmentation Project. An inventory of available groundwater and surface water is made and published in the Excess Flow report available on the DNR website. Additionally, a conjunctive management design template and a standard contract template will be posted to the website shortly. A project funded with ARRA dollars focused on surface water lease contracts and streamflow in excess of state protected flows and target flows. Following the evaluation a conceptual design of a conjunctive

management project was completed. The next steps involve mining the data further, examining operational constraints and developing a list of criteria to evaluate projects.

The spring groundwater recharge pilot and flood reduction project was a collaboration of DNR, NRDs and local irrigation districts. DNR will publish an analysis with benefits yet to be determined. Mr. Schneider presented a slide with project dollars and specifics on the diversions for the 21 canals participating in the project. An additional recharge project is planned for the fall anticipating the need to divert flows.

Mr. Schneider mentioned additional projects planned going forward including COHYST 2010 and the Western Water Use conjunctive management projects, the STELLA modeling tool, and the Management Options Plan (MOP).

The Basin-Wide Plan's Goal 1 Objective 3 includes the continuation of methodology development to calculate the difference between the current and fully appropriated levels of development in each NRD. For this objective, Mr. Schneider spoke about the project to define fully appropriated funded by IWMPP and CPNRD with work being completed by HDR, Inc. Mr. Schneider discussed the history of the project with the passage of LB 962 in 2004 requiring an annual evaluation by the DNR by January 1st of each year. Fully and overappropriated areas were required to develop IMPs within three to five years. CPNRD began discussions on funding the study to develop the proposed methodology on the fully/overappropriated difference. The first phase of the project involves a literature review and review of other states' methodologies. Phase II includes a case study evaluation on the Upper Niobrara River Basin and Central and Lower Platte River Basins. The project will look at historical water uses and supplies (the virgin water supply and demands), it will consider spatial and temporal variability in supplies and demands, and will more seamlessly facilitate the development of IMP goals and objectives. A stakeholder meeting was held in May 2011. Next steps for the project include an interim report on literature review and proposed methodology concepts, an opportunity for review and comments, followed by the parallel activities of an analysis of the Platte River and beginning the rulemaking process. Mr. Schneider noted that there will be future education and outreach efforts and for more information on these to contact Jennifer Schellpeper.

Mr. Schneider mentioned in his presentation the STELLA modeling tool which Brandi Flyr presented in more depth in her presentation. Ms. Flyr began her presentation with a demonstration of a model and then explored what the model does. She stated that the model looks at the interaction between surface and groundwater to illustrate the differences between water management options. The model explores timing, not the spatial aspect of the interactions. Previous COHYST work focused on the spatial aspect, while COHYST 2010 will do both spatial and temporal. Ms. Flyr discussed the assumptions that are made within the model: single canal system, stream depletion factor, recharge/consumptive use rates, and surface water diversions and groundwater pumping. Then Ms. Flyr described the different model scenarios. The baseline uses surface water only. Scenario 1 is the same as the baseline except non-irrigation season diversions. Scenario 2 combines surface water and groundwater use, while scenario 3 uses only

groundwater. Scenario 4 is groundwater use only during drought. Each of these scenarios was described in a slide to show the interactions. Then for the scenarios, Ms. Flyr showed charts and graphs of excess flow, shortages to target flow, and seepage to streamflows to demonstrate how the output of the model can be utilized. These scenarios were completed to show the types of analyses that could be completed with the COHYST 2010 modeling effort.

Following Ms. Flyr's presentation on the STELLA tool, Doug Hallum gave an update on the guidance document development for the annual and robust analyses. He stated that the document is still in process with work by the POAC (Platte Overappropriated Committee) technical committee continuing work and meeting regularly.

5. Proposed Revisions to the Basin-Wide Plan or to Individual IMPs & Disputes DNR or NRD Requests

CPNRD is proposing changes below Chapman, primarily considering handling the area differently due to PRRIP and tern/plover critical habitat. They are still developing proposed changes and will review with their board and DNR. Hearings will take place as needed.

Stakeholder/Public Requests

Roric Paulman represented the West Central Water Coalition and brought a signed copy of his letter addressed to the DNR and the NRDs. He thanked the Department and the NRDs for their work in the basin. He summarized the contents of his letter and asked for a response to the WCWC's letter by the DNR and NRDs. Mr. Paulman also suggested to the group that they take more effort to get the message out into the basin throughout the year and not just during this one meeting.

6. Public Comments

Brian Barels spoke on behalf of NPPD and thanked the DNR and the NRDs for their work. He noted that industrial wells should be treated equally as irrigation wells. Mr. Barels expressed that small reservoirs and sandpits are treated as an exemption to the law and that the Basin-Wide group should look into this. Mr. Barels also summarized the Sutherland project.

Don Kraus presented a letter to the Basin-Wide group from CNPPID. Mr. Kraus had requested revisions in his 6/28/2010 letter to the group and was disappointed with a late response in March 2011. He stated that CNPPID believes it is the interest of the state to resolve conflicts. The perception of the letter was that they were being ignored and CNPPID requests reconsideration of their previous request.

7. Meeting Summary

Action Items

All stakeholder and public requests will be responded to accordingly.

Schedule Next Annual Meeting

A discussion was held regarding the next annual meeting as the July timeframe coincides with field work throughout the basin. To allow for more stakeholder and board member involvement in the annual meeting, the next annual meeting was moved up one month. The meeting will take place the third Thursday of June, June 21st, 2012, at the North Platte NRD office in Scottsbluff.